Washington State Intersection Screening Tool 1.0

USER COMMENTS

Bellevue Braided Crossing Project

User Comments:

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Washington State Intersection Screening Tool 1.0

11-01-07

11:10 AM

Bellevue Braided Crossing Project

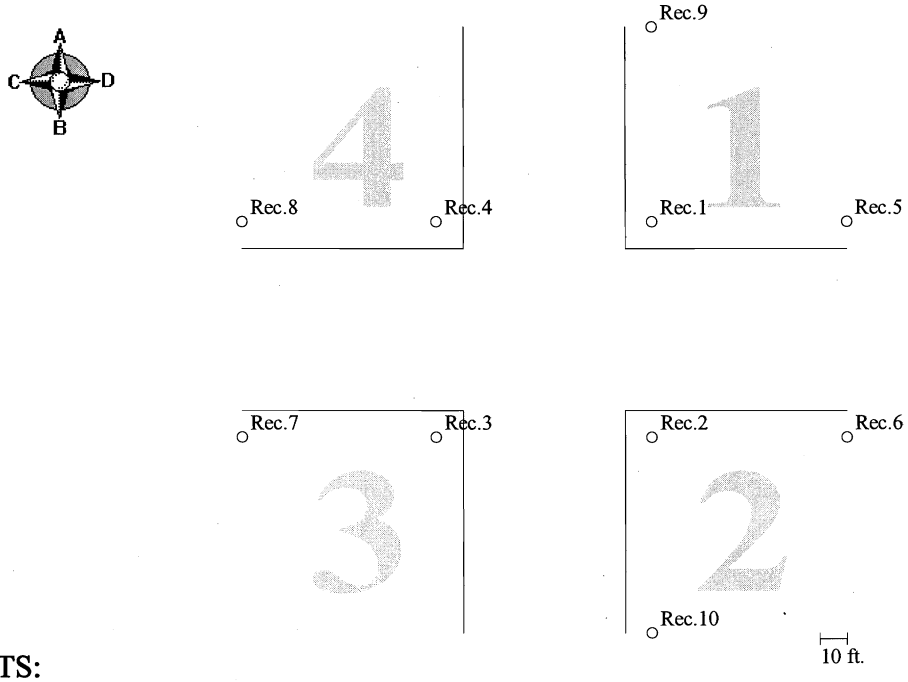
Description: **Bel-Red Road and 116th 2014 NB**

Performed by: **Natalie Liljenwall - CH2M HILL**

-

Intersection Type: **Four-Way Intersection, 4 x 4 w/4 Lt Turns**

Street Names: **A-B: 116th C-D: Belred**



RESULTS:

Receptor#	Quadrant	Distance from A-B roadway (feet)	Distance from C-D roadway (feet)	CO 1-hour avg. Conc. (ppm)	CO 8-hour avg. Conc. (ppm)	Pass/Fail*
1	1	10	10	8.7	7.6	Pass
2	2	10	10	8.5	7.4	Pass
3	3	10	10	8.4	7.4	Pass
4	4	10	10	8.6	7.5	Pass
5	1	82	10	8.0	7.1	Pass
6	2	82	10	7.7	6.9	Pass
7	3	82	10	7.9	7.0	Pass
8	4	82	10	7.6	6.8	Pass
9	1	10	82	7.6	6.8	Pass
10	2	10	82	8.2	7.2	Pass

*Project **PASSES** 1-hr and 8-hr NAAQS of 35 ppm and 9 ppm, respectively.

Largest modeled CO concentrations are at **receptor 1**.

- All CO concentrations include a background concentration of **5.0** ppm.
- 8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations (without background) by a persistence factor of 0.7 and then adding the background concentration.

Washington State Intersection Screening Tool 1.0

USER INPUTS

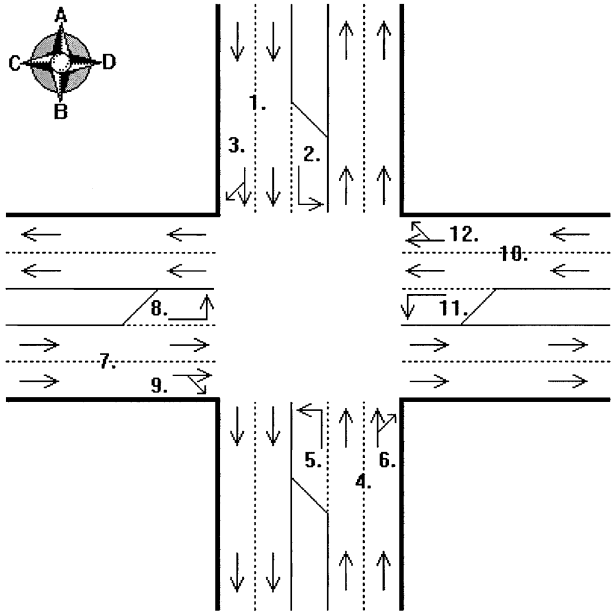
Bellevue Braided Crossing Project

Intersection Data:

Predominant Surroundings: **Offices**

Traffic Volumes:

Vol. Index	Movement	Volume (vph)
1	A-B Thru	780
2	A-D Left Turn	90
3	A-C Right Turn	240
4	B-A Thru	640
5	B-C Left Turn	60
6	B-D Right Turn	570
7	C-D Thru	720
8	C-A Left Turn	230
9	C-B Right Turn	50
10	D-C Thru	1100
11	D-B Left Turn	310
12	D-A Right Turn	120



CO Emission Factors Based On:

Location: **Western Washington - KING County**
CO Maint. Area: **Puget Sound**
I/M Program: **Yes**
Model Year: **2014**
Gasoline sulfur content of 160 ppm for 2005-2006, 60 ppm for 2007, & 30 ppm for 2008-2050.

MOBILE6.2 CO Emission Factors:

Idle Emission Factor (g/hr): **79.16**

Approach	Speed (mph)	EF (g/mile)
Leg A	30	13.20
Leg B	30	13.20
Leg C	30	13.20
Leg D	30	13.20

***Note: Local roadways should be modeled using an approach speed of 15 mph or less. Highway ramps should be modeled using an approach speed of 5 mph.**

Traffic Signal Timing:

Total Cycle Length (sec): **130**

Red Times:

Type of Movement	Red Times (sec)
Leg A Thru & Rt	94
Leg A Left Turn	118
Leg B Thru & Rt	96
Leg B Left Turn	120
Leg C Thru & Rt	85
Leg C Left Turn	107
Leg D Thru & Rt	73
Leg D Left Turn	95

User Comments:

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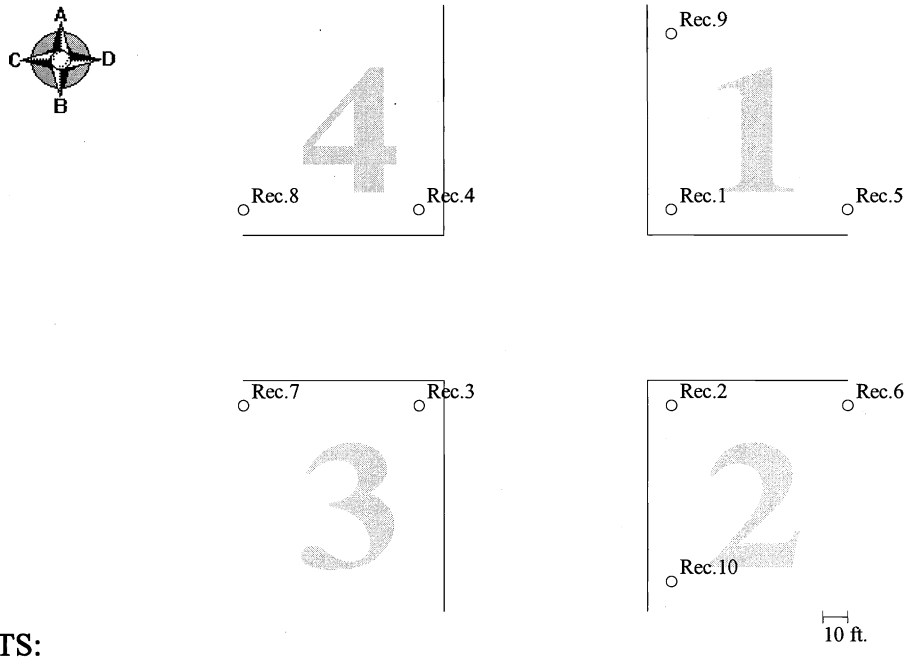
Washington State Intersection Screening Tool 1.0

11-02-07
10:58 AM
Bellevue Braided Crossing Project

Description: **30: NE 8th & 116th 2014 NB**
Performed by: **Natalie Liljenwall - CH2M HILL**
-
Intersection Type: **Four-Way Intersection, 6 x 4 w/4 Lt Turns**
Street Names: **A-B: 8th C-D: 116th**



RESULTS:

Receptor#	Quadrant	Distance from A-B roadway (feet)	Distance from C-D roadway (feet)	CO 1-hour avg. Conc. (ppm)	CO 8-hour avg. Conc. (ppm)	Pass/Fail*
1	1	10	10	10.2	8.6	Pass
2	2	10	10	9.6	8.2	Pass
3	3	10	10	10.0	8.5	Pass
4	4	10	10	10.0	8.5	Pass
5	1	82	10	9.0	7.8	Pass
6	2	82	10	8.4	7.4	Pass
7	3	82	10	8.9	7.7	Pass
8	4	82	10	8.5	7.4	Pass
9	1	10	82	8.7	7.6	Pass
10	2	10	82	9.3	8.0	Pass

*Project **PASSES** 1-hr and 8-hr NAAQS of 35 ppm and 9 ppm, respectively.
Largest modeled CO concentrations are at **receptor 1**.
- All CO concentrations include a background concentration of **5.0** ppm.
- 8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations (without background) by a persistence factor of 0.7 and then adding the background concentration.

Washington State Intersection Screening Tool 1.0

USER INPUTS

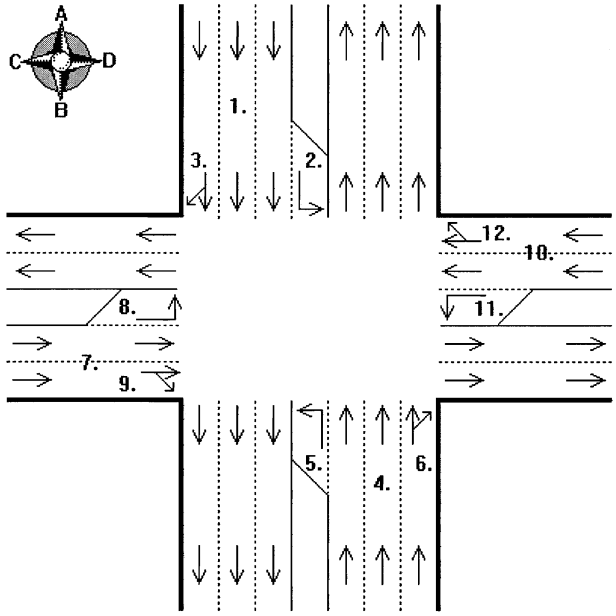
Bellevue Braided Crossing Project

Intersection Data:

Predominant Surroundings: **Offices**

Traffic Volumes:

Vol. Index	Movement	Volume (vph)
1	A-B Thru	1120
2	A-D Left Turn	230
3	A-C Right Turn	340
4	B-A Thru	1570
5	B-C Left Turn	300
6	B-D Right Turn	300
7	C-D Thru	690
8	C-A Left Turn	250
9	C-B Right Turn	440
10	D-C Thru	690
11	D-B Left Turn	510
12	D-A Right Turn	790



CO Emission Factors Based On:

Location: **Western Washington - KING County**
CO Maint. Area: **Puget Sound**
I/M Program: **Yes**
Model Year: **2014**
Gasoline sulfur content of 160 ppm for 2005-2006, 60 ppm for 2007, & 30 ppm for 2008-2050.

MOBILE6.2 CO Emission Factors:

Idle Emission Factor (g/hr): **79.16**

Approach	Speed (mph)	EF (g/mile)
Leg A	30	13.20
Leg B	30	13.20
Leg C	30	13.20
Leg D	30	13.20

***Note: Local roadways should be modeled using an approach speed of 15 mph or less. Highway ramps should be modeled using an approach speed of 5 mph.**

Traffic Signal Timing:

Total Cycle Length (sec): **130**

Red Times:

Type of Movement	Red Times (sec)
Leg A Thru & Rt	86
Leg A Left Turn	117
Leg B Thru & Rt	74
Leg B Left Turn	105
Leg C Thru & Rt	96
Leg C Left Turn	104
Leg D Thru & Rt	99
Leg D Left Turn	107

Washington State Intersection Screening Tool 1.0

USER COMMENTS

Bellevue Braided Crossing Project

User Comments:

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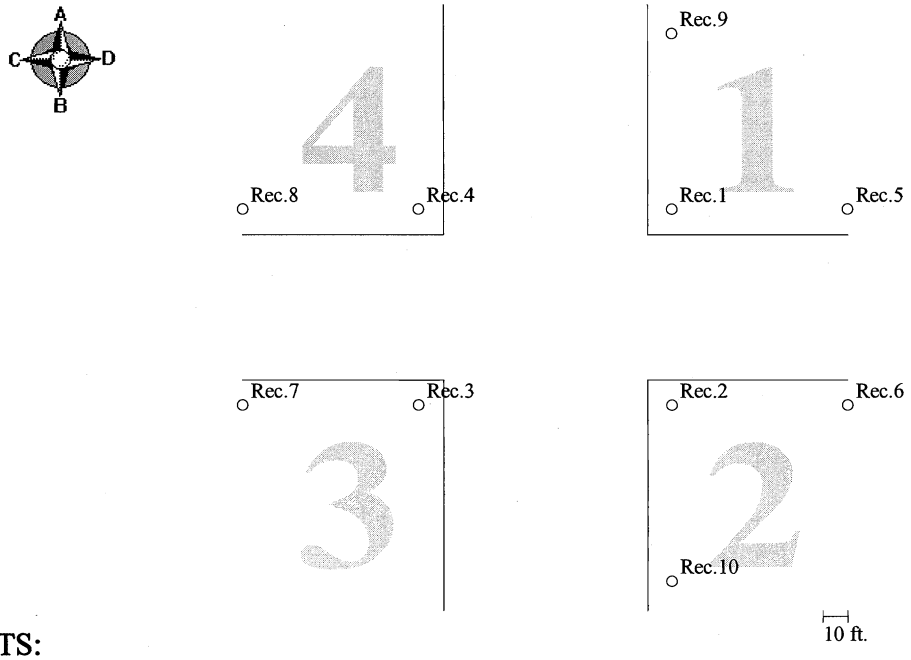
Washington State Intersection Screening Tool 1.0

11-02-07
10:58 AM

Bellevue Braided Crossing Project

Description: **72: NE 4th and 112th: 2014 NB**
Performed by: **Natalie Liljenwall - CH2M HILL**
-
Intersection Type: **Four-Way Intersection, 6 x 4 w/4 Lt Turns**
Street Names: **A-B: 4th C-D: 112th**



RESULTS:

Receptor#	Quadrant	Distance from A-B roadway (feet)	Distance from C-D roadway (feet)	CO 1-hour avg. Conc. (ppm)	CO 8-hour avg. Conc. (ppm)	Pass/Fail*
1	1	10	10	8.2	7.2	Pass
2	2	10	10	8.1	7.2	Pass
3	3	10	10	8.4	7.4	Pass
4	4	10	10	8.2	7.2	Pass
5	1	82	10	7.8	7.0	Pass
6	2	82	10	7.2	6.5	Pass
7	3	82	10	7.8	7.0	Pass
8	4	82	10	7.2	6.5	Pass
9	1	10	82	7.0	6.4	Pass
10	2	10	82	8.0	7.1	Pass

*Project **PASSES** 1-hr and 8-hr NAAQS of 35 ppm and 9 ppm, respectively.
Largest modeled CO concentrations are at **receptor 3**.
- All CO concentrations include a background concentration of **5.0** ppm.
- 8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations (without background) by a persistence factor of 0.7 and then adding the background concentration.

Washington State Intersection Screening Tool 1.0

USER INPUTS

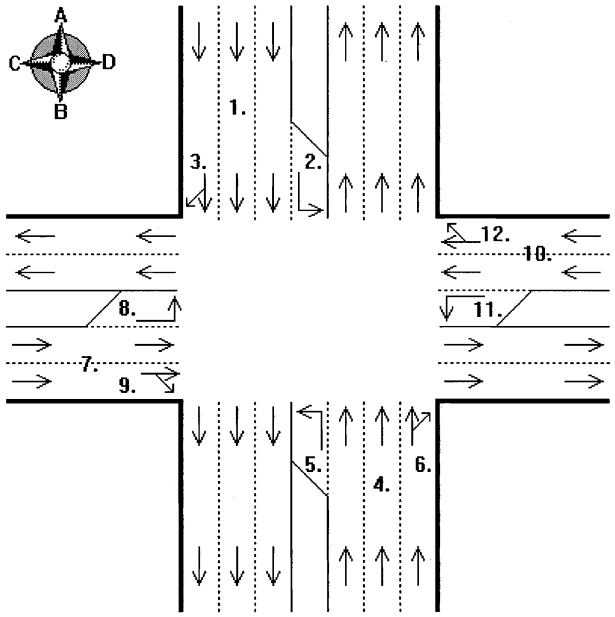
Bellevue Braided Crossing Project

Intersection Data:

Predominant Surroundings: **Offices**

Traffic Volumes:

Vol. Index	Movement	Volume (vph)
1	A-B Thru	1350
2	A-D Left Turn	40
3	A-C Right Turn	160
4	B-A Thru	750
5	B-C Left Turn	2
6	B-D Right Turn	160
7	C-D Thru	580
8	C-A Left Turn	120
9	C-B Right Turn	330
10	D-C Thru	730
11	D-B Left Turn	340
12	D-A Right Turn	80



CO Emission Factors Based On:

Location: **Western Washington - KING County**
CO Maint. Area: **Puget Sound**
I/M Program: **Yes**
Model Year: **2014**
Gasoline sulfur content of 160 ppm for 2005-2006, 60 ppm for 2007, & 30 ppm for 2008-2050.

MOBILE6.2 CO Emission Factors:

Idle Emission Factor (g/hr): **79.16**

Approach	Speed (mph)	EF (g/mile)
Leg A	30	13.20
Leg B	30	13.20
Leg C	30	13.20
Leg D	30	13.20

***Note: Local roadways should be modeled using an approach speed of 15 mph or less. Highway ramps should be modeled using an approach speed of 5 mph.**

Traffic Signal Timing:

Total Cycle Length (sec): **130**

Red Times:

Type of Movement	Red Times (sec)
Leg A Thru & Rt	72
Leg A Left Turn	119
Leg B Thru & Rt	84
Leg B Left Turn	84
Leg C Thru & Rt	85
Leg C Left Turn	111
Leg D Thru & Rt	80
Leg D Left Turn	106

User Comments:

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Washington State Intersection Screening Tool 1.0

11-02-07

10:59 AM

Bellevue Braided Crossing Project

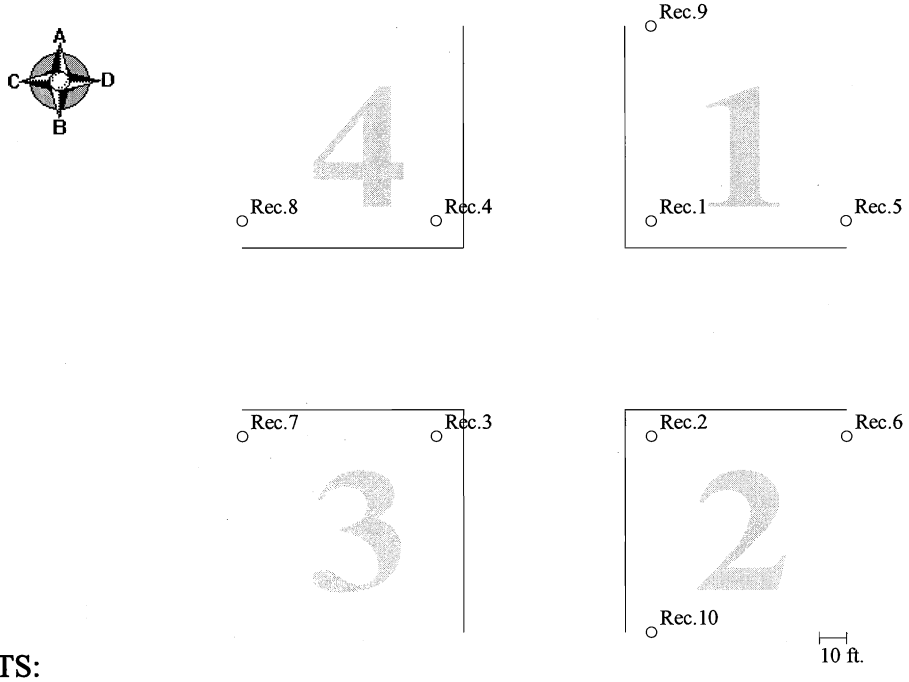
Description: **Main St. and 112th NB**

Performed by: **Natalie Liljenwall - CH2M HILL**

-

Intersection Type: **Four-Way Intersection, 4 x 4 w/4 Lt Turns**

Street Names: **A-B: 112th C-D: Main**



RESULTS:

Receptor#	Quadrant	Distance from A-B roadway (feet)	Distance from C-D roadway (feet)	CO 1-hour avg. Conc. (ppm)	CO 8-hour avg. Conc. (ppm)	Pass/Fail*
1	1	10	10	8.2	7.2	Pass
2	2	10	10	8.5	7.4	Pass
3	3	10	10	8.4	7.4	Pass
4	4	10	10	8.1	7.2	Pass
5	1	82	10	7.8	7.0	Pass
6	2	82	10	7.3	6.6	Pass
7	3	82	10	7.8	7.0	Pass
8	4	82	10	7.2	6.5	Pass
9	1	10	82	7.3	6.6	Pass
10	2	10	82	8.0	7.1	Pass

*Project **PASSES** 1-hr and 8-hr NAAQS of 35 ppm and 9 ppm, respectively.

Largest modeled CO concentrations are at **receptor 2.**

- All CO concentrations include a background concentration of **5.0** ppm.
- 8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations (without background) by a persistence factor of 0.7 and then adding the background concentration.

Washington State Intersection Screening Tool 1.0

USER INPUTS

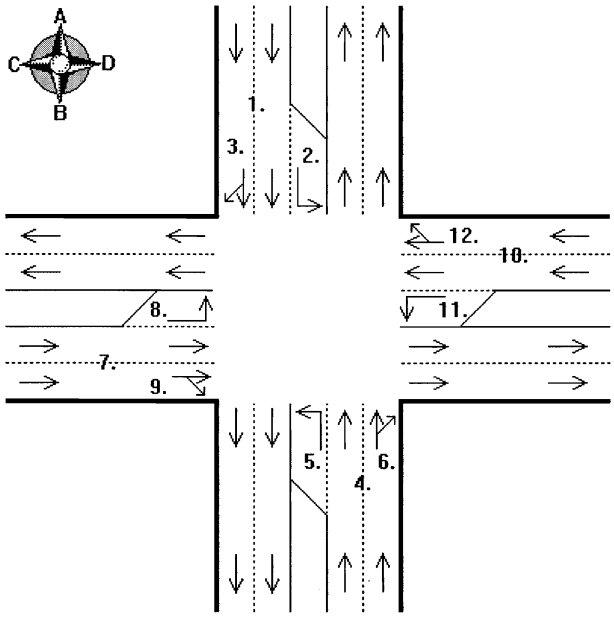
Bellevue Braided Crossing Project

Intersection Data:

Predominant Surroundings: **Offices**

Traffic Volumes:

Vol. Index	Movement	Volume (vph)
1	A-B Thru	830
2	A-D Left Turn	170
3	A-C Right Turn	100
4	B-A Thru	500
5	B-C Left Turn	260
6	B-D Right Turn	140
7	C-D Thru	790
8	C-A Left Turn	130
9	C-B Right Turn	360
10	D-C Thru	570
11	D-B Left Turn	240
12	D-A Right Turn	60



CO Emission Factors Based On:

Location: **Western Washington - KING County**
CO Maint. Area: **Puget Sound**
I/M Program: **Yes**
Model Year: **2014**
Gasoline sulfur content of 160 ppm for 2005-2006, 60 ppm for 2007, & 30 ppm for 2008-2050.

MOBILE6.2 CO Emission Factors:

Idle Emission Factor (g/hr): **79.16**

Approach	Speed (mph)	EF (g/mile)
Leg A	30	13.20
Leg B	30	13.20
Leg C	30	13.20
Leg D	30	13.20

***Note: Local roadways should be modeled using an approach speed of 15 mph or less. Highway ramps should be modeled using an approach speed of 5 mph.**

Traffic Signal Timing:

Total Cycle Length (sec): **130**

Red Times:

Type of Movement	Red Times (sec)
Leg A Thru & Rt	90
Leg A Left Turn	111
Leg B Thru & Rt	88
Leg B Left Turn	109
Leg C Thru & Rt	85
Leg C Left Turn	111
Leg D Thru & Rt	84
Leg D Left Turn	110

Washington State Intersection Screening Tool 1.0

USER COMMENTS

Bellevue Braided Crossing Project

User Comments:

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Washington State Intersection Screening Tool 1.0

11-01-07

10:04 AM

Bellevue Braided Crossing Project

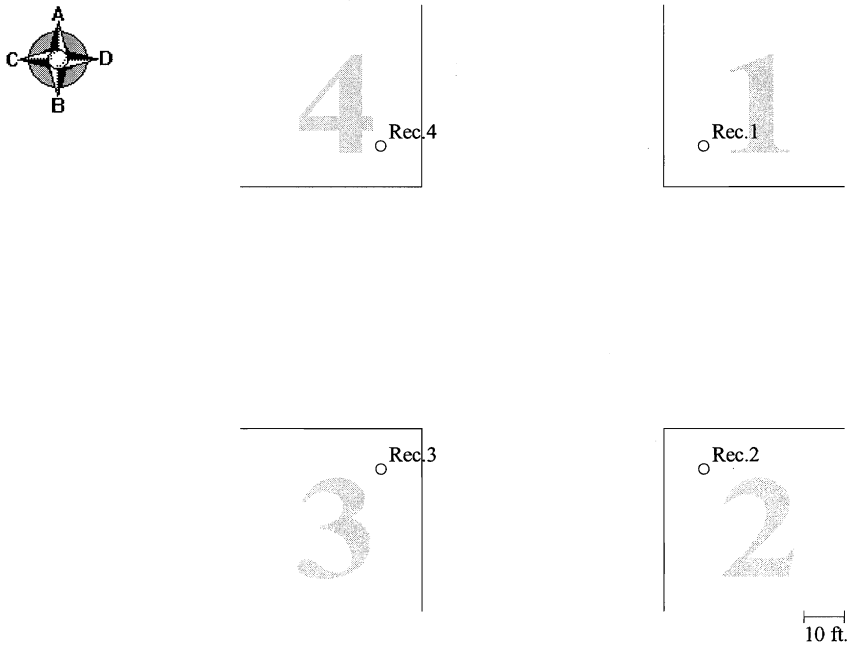
Description: **NE 12th & 112th 2014 B**

Performed by: **Natalie Liljenwall - CH2M HILL**

-

Intersection Type: **Four-Way Intersection, 4 x 4 w/4 Lt Turns**

Street Names: **A-B: 112th C-D: 12th**



RESULTS:

Receptor#	Quadrant	Distance from A-B roadway (feet)	Distance from C-D roadway (feet)	CO 1-hour avg. Conc. (ppm)	CO 8-hour avg. Conc. (ppm)	Pass/Fail*
1	1	10	10	8.3	7.3	Pass
2	2	10	10	8.3	7.3	Pass
3	3	10	10	8.3	7.3	Pass
4	4	10	10	8.5	7.4	Pass

*Project **PASSES** 1-hr and 8-hr NAAQS of 35 ppm and 9 ppm, respectively.

Largest modeled CO concentrations are at **receptor 4**.

- All CO concentrations include a background concentration of **5.0** ppm.
- 8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations (without background) by a persistence factor of 0.7 and then adding the background concentration.

Washington State Intersection Screening Tool 1.0

USER INPUTS

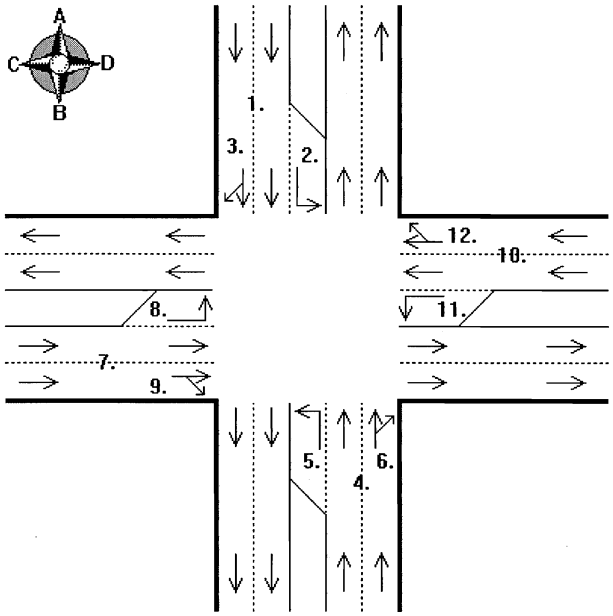
Bellevue Braided Crossing Project

Intersection Data:

Predominant Surroundings: **Offices**

Traffic Volumes:

Vol. Index	Movement	Volume (vph)
1	A-B Thru	680
2	A-D Left Turn	100
3	A-C Right Turn	230
4	B-A Thru	540
5	B-C Left Turn	160
6	B-D Right Turn	200
7	C-D Thru	690
8	C-A Left Turn	270
9	C-B Right Turn	180
10	D-C Thru	1020
11	D-B Left Turn	170
12	D-A Right Turn	180



CO Emission Factors Based On:

Location: **Western Washington - KING County**
CO Maint. Area: **Puget Sound**
I/M Program: **Yes**
Model Year: **2014**
Gasoline sulfur content of 160 ppm for 2005-2006, 60 ppm for 2007, & 30 ppm for 2008-2050.

MOBILE6.2 CO Emission Factors:

Idle Emission Factor (g/hr): **79.16**

Approach	Speed (mph)	EF (g/mile)
Leg A	30	13.20
Leg B	30	13.20
Leg C	30	13.20
Leg D	30	13.20

***Note: Local roadways should be modeled using an approach speed of 15 mph or less. Highway ramps should be modeled using an approach speed of 5 mph.**

Traffic Signal Timing:

Total Cycle Length (sec): **130**

Red Times:

Type of Movement	Red Times (sec)
Leg A Thru & Rt	93
Leg A Left Turn	117
Leg B Thru & Rt	90
Leg B Left Turn	114
Leg C Thru & Rt	77
Leg C Left Turn	107
Leg D Thru & Rt	80
Leg D Left Turn	110

Washington State Intersection Screening Tool 1.0

USER COMMENTS

Bellevue Braided Crossing Project

User Comments:

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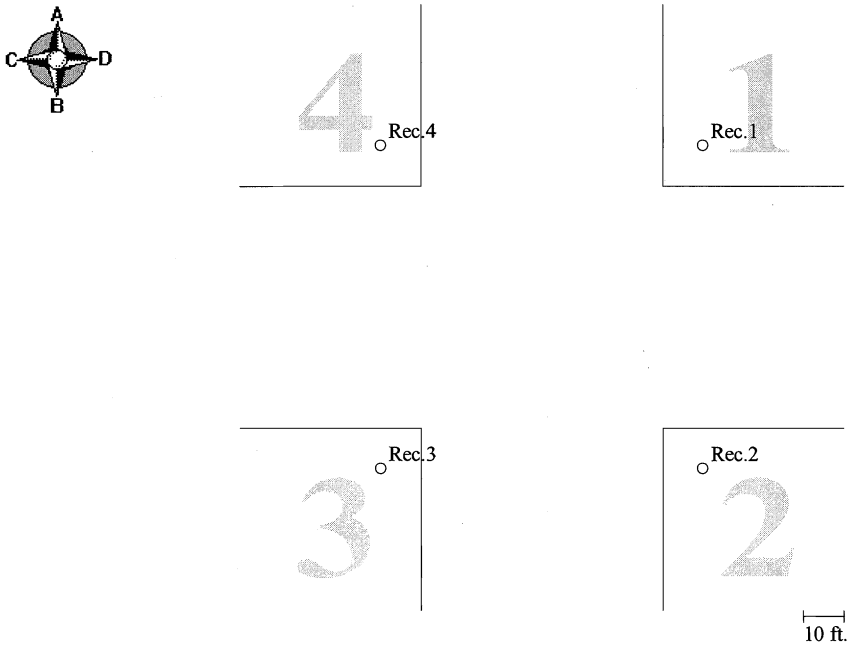
Washington State Intersection Screening Tool 1.0

11-02-07
11:32 AM
Bellevue Braided Crossing Project

Description: **26: NE 8th and 405 off B 2014**
Performed by: **Natalie Liljenwall - CH2M HILL**
-
Intersection Type: **Four-Way Intersection, 4 x 4 w/4 Lt Turns**
Street Names: **A-B: 405 Off C-D: 8th**



RESULTS:

Receptor#	Quadrant	Distance from A-B roadway (feet)	Distance from C-D roadway (feet)	CO 1-hour avg. Conc. (ppm)	CO 8-hour avg. Conc. (ppm)	Pass/Fail*
1	1	10	10	9.0	7.8	Pass
2	2	10	10	9.1	7.9	Pass
3	3	10	10	9.3	8.0	Pass
4	4	10	10	9.6	8.2	Pass

*Project **PASSES** 1-hr and 8-hr NAAQS of 35 ppm and 9 ppm, respectively.
Largest modeled CO concentrations are at **receptor 4**.
- All CO concentrations include a background concentration of **5.0** ppm.
- 8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations (without background) by a persistence factor of 0.7 and then adding the background concentration.

Washington State Intersection Screening Tool 1.0

USER INPUTS

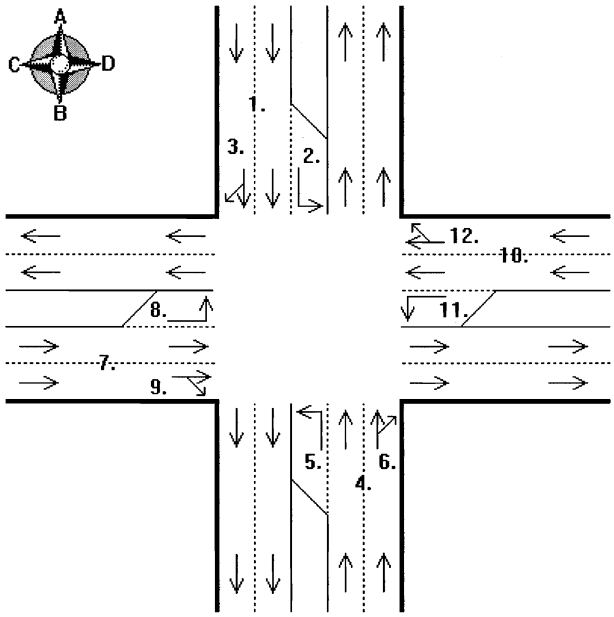
Bellevue Braided Crossing Project

Intersection Data:

Predominant Surroundings: **Offices**

Traffic Volumes:

Vol. Index	Movement	Volume (vph)
1	A-B Thru	720
2	A-D Left Turn	420
3	A-C Right Turn	100
4	B-A Thru	470
5	B-C Left Turn	140
6	B-D Right Turn	270
7	C-D Thru	1190
8	C-A Left Turn	2
9	C-B Right Turn	480
10	D-C Thru	1790
11	D-B Left Turn	200
12	D-A Right Turn	250



CO Emission Factors Based On:

Location: **Western Washington - KING County**
CO Maint. Area: **Puget Sound**
I/M Program: **Yes**
Model Year: **2014**
Gasoline sulfur content of 160 ppm for 2005-2006, 60 ppm for 2007, & 30 ppm for 2008-2050.

MOBILE6.2 CO Emission Factors:

Idle Emission Factor (g/hr): **79.16**

Approach	Speed (mph)	EF (g/mile)
Leg A	30	13.20
Leg B	30	13.20
Leg C	30	13.20
Leg D	30	13.20

***Note: Local roadways should be modeled using an approach speed of 15 mph or less. Highway ramps should be modeled using an approach speed of 5 mph.**

Traffic Signal Timing:

Total Cycle Length (sec): **130**

Red Times:

Type of Movement	Red Times (sec)
Leg A Thru & Rt	89
Leg A Left Turn	105
Leg B Thru & Rt	96
Leg B Left Turn	112
Leg C Thru & Rt	83
Leg C Left Turn	83
Leg D Thru & Rt	94
Leg D Left Turn	110

Washington State Intersection Screening Tool 1.0

USER COMMENTS

Bellevue Braided Crossing Project

User Comments:

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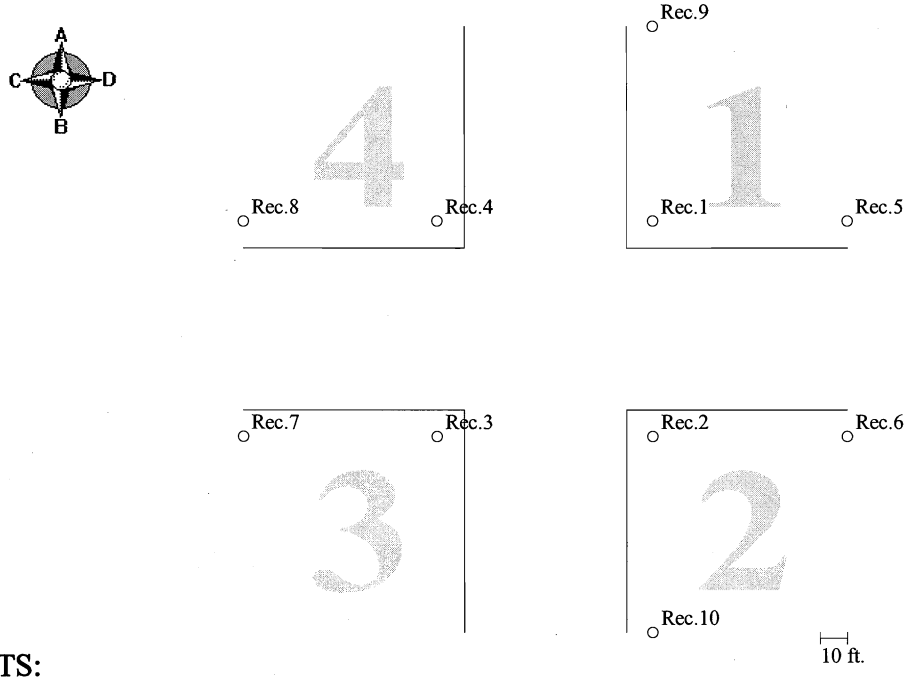
Washington State Intersection Screening Tool 1.0

11-02-07

11:33 AM

Bellevue Braided Crossing Project

Description: **Bel-Red Road and 116th 2014 B**
Performed by: **Natalie Liljenwall - CH2M HILL**
-
Intersection Type: **Four-Way Intersection, 4 x 4 w/4 Lt Turns**
Street Names: **A-B: 116th C-D: Belred**



RESULTS:

Receptor#	Quadrant	Distance from A-B roadway (feet)	Distance from C-D roadway (feet)	CO 1-hour avg. Conc. (ppm)	CO 8-hour avg. Conc. (ppm)	Pass/Fail*
1	1	10	10	8.7	7.6	Pass
2	2	10	10	8.5	7.4	Pass
3	3	10	10	8.4	7.4	Pass
4	4	10	10	8.6	7.5	Pass
5	1	82	10	8.0	7.1	Pass
6	2	82	10	7.7	6.9	Pass
7	3	82	10	7.9	7.0	Pass
8	4	82	10	7.6	6.8	Pass
9	1	10	82	7.6	6.8	Pass
10	2	10	82	8.2	7.2	Pass

*Project **PASSES** 1-hr and 8-hr NAAQS of 35 ppm and 9 ppm, respectively.
Largest modeled CO concentrations are at **receptor 1**.
- All CO concentrations include a background concentration of **5.0** ppm.
- 8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations (without background) by a persistence factor of 0.7 and then adding the background concentration.

Washington State Intersection Screening Tool 1.0

USER INPUTS

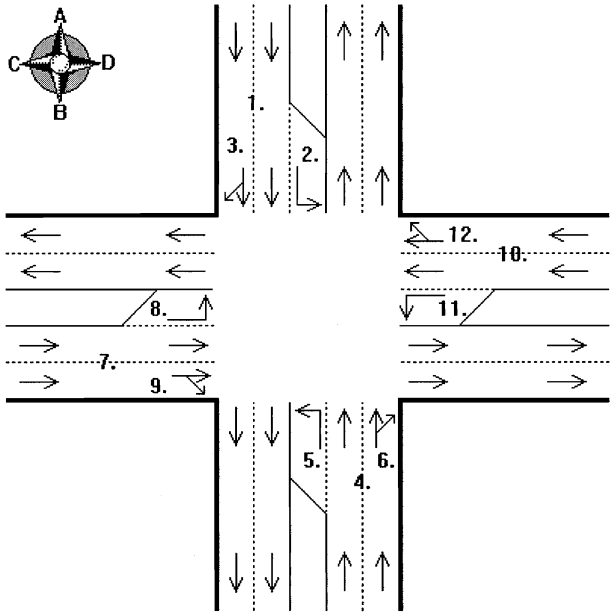
Bellevue Braided Crossing Project

Intersection Data:

Predominant Surroundings: **Offices**

Traffic Volumes:

Vol. Index	Movement	Volume (vph)
1	A-B Thru	780
2	A-D Left Turn	90
3	A-C Right Turn	240
4	B-A Thru	640
5	B-C Left Turn	60
6	B-D Right Turn	570
7	C-D Thru	720
8	C-A Left Turn	230
9	C-B Right Turn	50
10	D-C Thru	1100
11	D-B Left Turn	310
12	D-A Right Turn	120



CO Emission Factors Based On:

Location: **Western Washington - KING County**
CO Maint. Area: **Puget Sound**
I/M Program: **Yes**
Model Year: **2014**
Gasoline sulfur content of 160 ppm for 2005-2006, 60 ppm for 2007, & 30 ppm for 2008-2050.

MOBILE6.2 CO Emission Factors:

Idle Emission Factor (g/hr): **79.16**

Approach	Speed (mph)	EF (g/mile)
Leg A	30	13.20
Leg B	30	13.20
Leg C	30	13.20
Leg D	30	13.20

***Note: Local roadways should be modeled using an approach speed of 15 mph or less. Highway ramps should be modeled using an approach speed of 5 mph.**

Traffic Signal Timing:

Total Cycle Length (sec): **130**

Red Times:

Type of Movement	Red Times (sec)
Leg A Thru & Rt	94
Leg A Left Turn	118
Leg B Thru & Rt	96
Leg B Left Turn	120
Leg C Thru & Rt	85
Leg C Left Turn	107
Leg D Thru & Rt	73
Leg D Left Turn	95

User Comments:

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Washington State Intersection Screening Tool 1.0

11-01-07

11:15 AM

Bellevue Braided Crossing Project

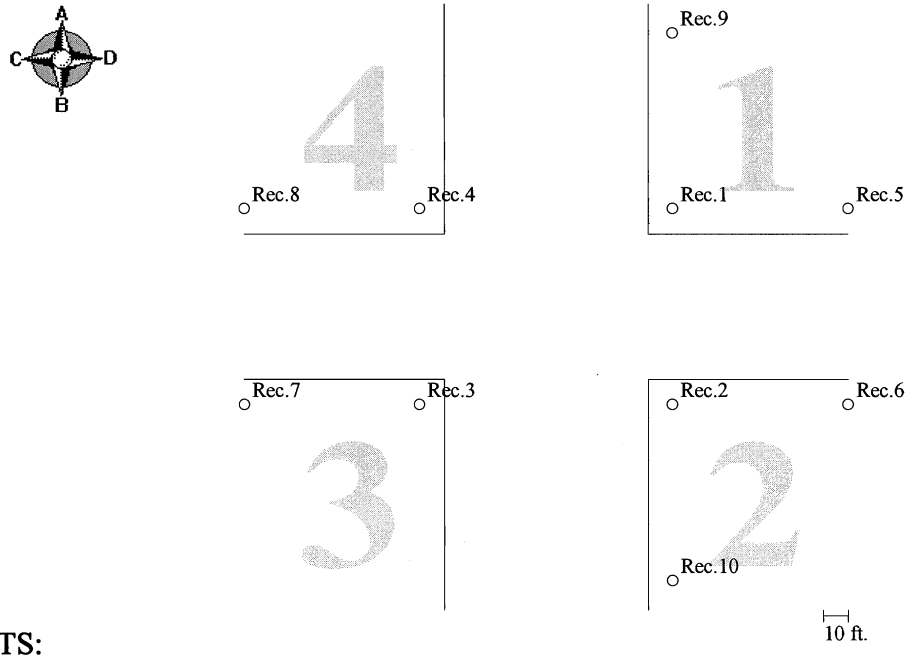
Description: **30: NE 8th & 116th 2014 B**

Performed by: **Natalie Liljenwall - CH2M HILL**

-

Intersection Type: **Four-Way Intersection, 6 x 4 w/4 Lt Turns**

Street Names: **A-B: 8th C-D: 116th**



RESULTS:

Receptor#	Quadrant	Distance from A-B roadway (feet)	Distance from C-D roadway (feet)	CO 1-hour avg. Conc. (ppm)	CO 8-hour avg. Conc. (ppm)	Pass/Fail*
1	1	10	10	10.2	8.6	Pass
2	2	10	10	9.6	8.2	Pass
3	3	10	10	10.0	8.5	Pass
4	4	10	10	10.0	8.5	Pass
5	1	82	10	9.0	7.8	Pass
6	2	82	10	8.4	7.4	Pass
7	3	82	10	8.9	7.7	Pass
8	4	82	10	8.5	7.4	Pass
9	1	10	82	8.7	7.6	Pass
10	2	10	82	9.3	8.0	Pass

*Project **PASSES** 1-hr and 8-hr NAAQS of 35 ppm and 9 ppm, respectively.

Largest modeled CO concentrations are at **receptor** 1.

- All CO concentrations include a background concentration of **5.0** ppm.
- 8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations (without background) by a persistence factor of 0.7 and then adding the background concentration.

Washington State Intersection Screening Tool 1.0

USER INPUTS

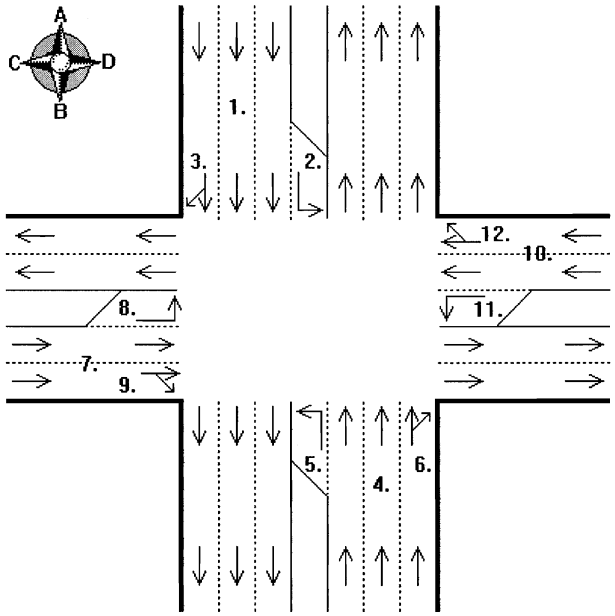
Bellevue Braided Crossing Project

Intersection Data:

Predominant Surroundings: **Offices**

Traffic Volumes:

Vol. Index	Movement	Volume (vph)
1	A-B Thru	1120
2	A-D Left Turn	230
3	A-C Right Turn	340
4	B-A Thru	1570
5	B-C Left Turn	300
6	B-D Right Turn	300
7	C-D Thru	690
8	C-A Left Turn	250
9	C-B Right Turn	440
10	D-C Thru	690
11	D-B Left Turn	510
12	D-A Right Turn	790



CO Emission Factors Based On:

Location: **Western Washington - KING County**
CO Maint. Area: **Puget Sound**
I/M Program: **Yes**
Model Year: **2014**
Gasoline sulfur content of 160 ppm for 2005-2006, 60 ppm for 2007, & 30 ppm for 2008-2050.

MOBILE6.2 CO Emission Factors:

Idle Emission Factor (g/hr): **79.16**

Approach	Speed (mph)	EF (g/mile)
Leg A	30	13.20
Leg B	30	13.20
Leg C	30	13.20
Leg D	30	13.20

***Note: Local roadways should be modeled using an approach speed of 15 mph or less. Highway ramps should be modeled using an approach speed of 5 mph.**

Traffic Signal Timing:

Total Cycle Length (sec): **130**

Red Times:

Type of Movement	Red Times (sec)
Leg A Thru & Rt	86
Leg A Left Turn	117
Leg B Thru & Rt	74
Leg B Left Turn	105
Leg C Thru & Rt	96
Leg C Left Turn	104
Leg D Thru & Rt	99
Leg D Left Turn	107

Washington State Intersection Screening Tool 1.0

USER COMMENTS

Bellevue Braided Crossing Project

User Comments:

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Washington State Intersection Screening Tool 1.0

11-01-07

11:22 AM

Bellevue Braided Crossing Project

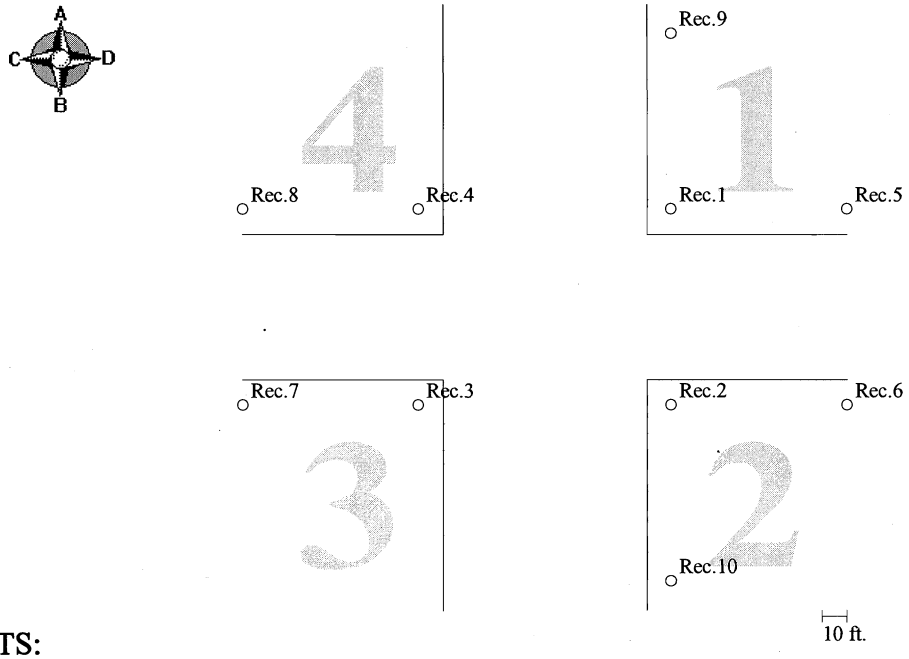
Description: **72: NE 4th and 112th: 2014 B**

Performed by: **Natalie Liljenwall - CH2M HILL**

-

Intersection Type: **Four-Way Intersection, 6 x 4 w/4 Lt Turns**

Street Names: **A-B: 4th C-D: 112th**



RESULTS:

Receptor#	Quadrant	Distance from A-B roadway (feet)	Distance from C-D roadway (feet)	CO 1-hour avg. Conc. (ppm)	CO 8-hour avg. Conc. (ppm)	Pass/Fail*
1	1	10	10	8.2	7.2	Pass
2	2	10	10	8.1	7.2	Pass
3	3	10	10	8.4	7.4	Pass
4	4	10	10	8.2	7.2	Pass
5	1	82	10	7.8	7.0	Pass
6	2	82	10	7.2	6.5	Pass
7	3	82	10	7.8	7.0	Pass
8	4	82	10	7.2	6.5	Pass
9	1	10	82	7.0	6.4	Pass
10	2	10	82	8.0	7.1	Pass

*Project **PASSES** 1-hr and 8-hr NAAQS of 35 ppm and 9 ppm, respectively.

Largest modeled CO concentrations are at **receptor 3**.

- All CO concentrations include a background concentration of **5.0** ppm.
- 8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations (without background) by a persistence factor of 0.7 and then adding the background concentration.

Washington State Intersection Screening Tool 1.0

USER INPUTS

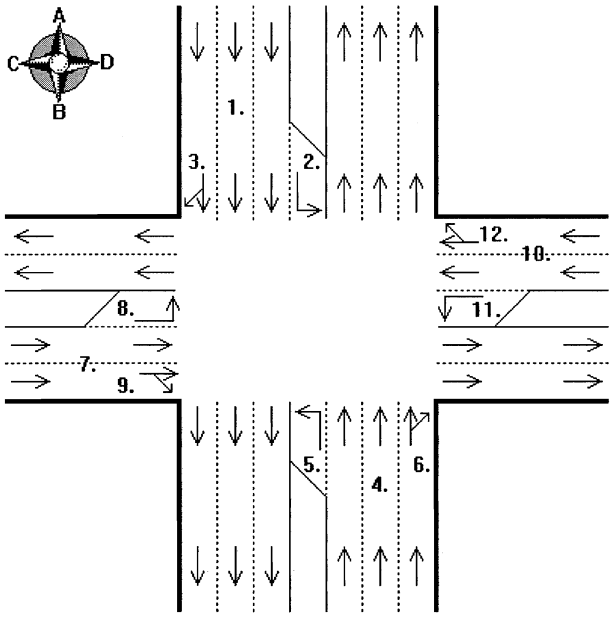
Bellevue Braided Crossing Project

Intersection Data:

Predominant Surroundings: **Offices**

Traffic Volumes:

Vol. Index	Movement	Volume (vph)
1	A-B Thru	1350
2	A-D Left Turn	40
3	A-C Right Turn	160
4	B-A Thru	750
5	B-C Left Turn	2
6	B-D Right Turn	160
7	C-D Thru	580
8	C-A Left Turn	120
9	C-B Right Turn	330
10	D-C Thru	730
11	D-B Left Turn	340
12	D-A Right Turn	80



CO Emission Factors Based On:

Location: **Western Washington - KING County**
CO Maint. Area: **Puget Sound**
I/M Program: **Yes**
Model Year: **2014**
Gasoline sulfur content of 160 ppm for 2005-2006, 60 ppm for 2007, & 30 ppm for 2008-2050.

MOBILE6.2 CO Emission Factors:

Idle Emission Factor (g/hr): **79.16**

Approach	Speed (mph)	EF (g/mile)
Leg A	30	13.20
Leg B	30	13.20
Leg C	30	13.20
Leg D	30	13.20

***Note: Local roadways should be modeled using an approach speed of 15 mph or less. Highway ramps should be modeled using an approach speed of 5 mph.**

Traffic Signal Timing:

Total Cycle Length (sec): **130**

Red Times:

Type of Movement	Red Times (sec)
Leg A Thru & Rt	72
Leg A Left Turn	119
Leg B Thru & Rt	84
Leg B Left Turn	84
Leg C Thru & Rt	85
Leg C Left Turn	111
Leg D Thru & Rt	80
Leg D Left Turn	106

Washington State Intersection Screening Tool 1.0

USER COMMENTS

Bellevue Braided Crossing Project

User Comments:

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Washington State Intersection Screening Tool 1.0

04-04-07

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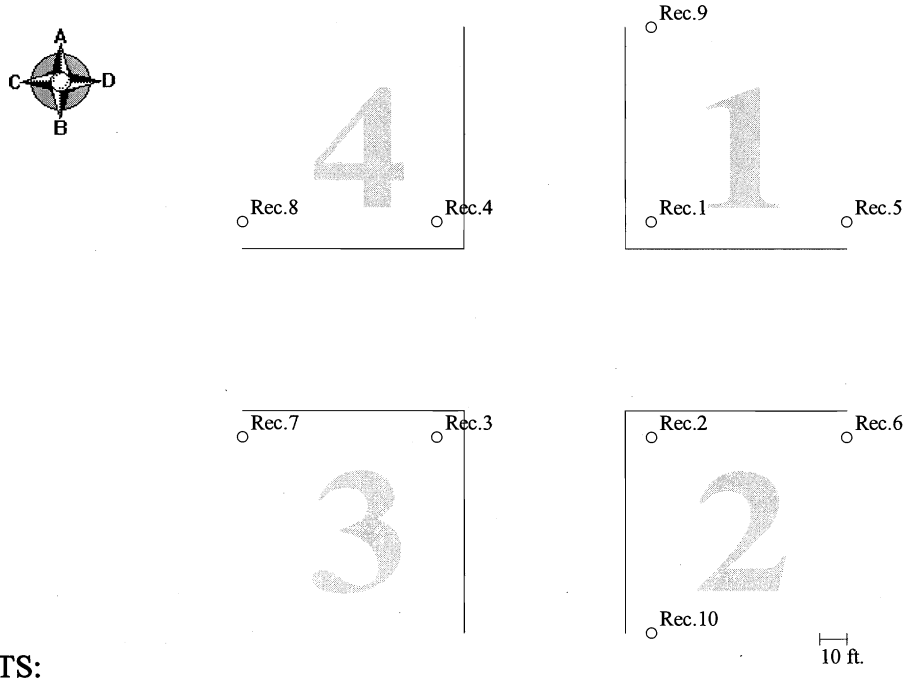
Bellevue Braided Crossing Project

Description: **Main St. and 112th Build**
Performed by: **Natalie Liljenwall - CH2M HILL**
-
Intersection Type: **Four-Way Intersection, 4 x 4 w/4 Lt Turns**
Street Names: **A-B: 112th C-D: Main**



RESULTS:

Receptor#	Quadrant	Distance from A-B roadway (feet)	Distance from C-D roadway (feet)	CO 1-hour avg. Conc. (ppm)	CO 8-hour avg. Conc. (ppm)	Pass/Fail*
1	1	10	10	8.2	7.2	Pass
2	2	10	10	8.5	7.4	Pass
3	3	10	10	8.4	7.4	Pass
4	4	10	10	8.1	7.2	Pass
5	1	82	10	7.8	7.0	Pass
6	2	82	10	7.3	6.6	Pass
7	3	82	10	7.8	7.0	Pass
8	4	82	10	7.2	6.5	Pass
9	1	10	82	7.3	6.6	Pass
10	2	10	82	8.0	7.1	Pass

*Project **PASSES** 1-hr and 8-hr NAAQS of 35 ppm and 9 ppm, respectively.
Largest modeled CO concentrations are at **receptor 2.**
- All CO concentrations include a background concentration of **5.0** ppm.
- 8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations (without background) by a persistence factor of 0.7 and then adding the background concentration.

Washington State Intersection Screening Tool 1.0

USER INPUTS

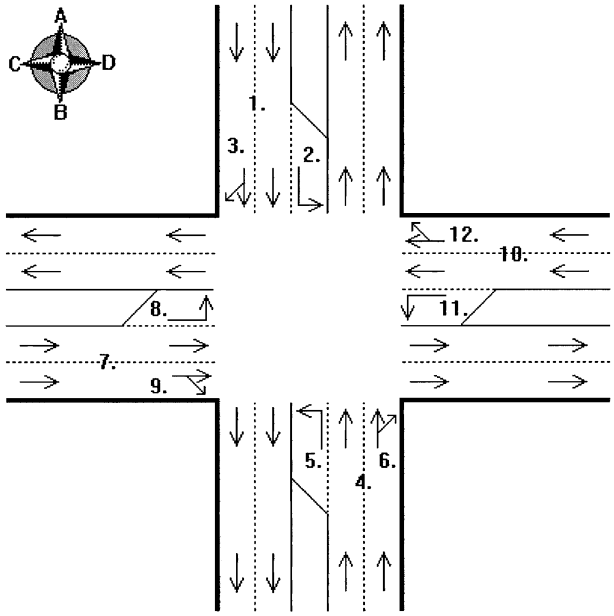
Bellevue Braided Crossing Project

Intersection Data:

Predominant Surroundings: **Offices**

Traffic Volumes:

Vol. Index	Movement	Volume (vph)
1	A-B Thru	830
2	A-D Left Turn	170
3	A-C Right Turn	100
4	B-A Thru	500
5	B-C Left Turn	260
6	B-D Right Turn	140
7	C-D Thru	790
8	C-A Left Turn	130
9	C-B Right Turn	360
10	D-C Thru	570
11	D-B Left Turn	240
12	D-A Right Turn	60



CO Emission Factors Based On:

Location: **Western Washington - KING County**
CO Maint. Area: **Puget Sound**
I/M Program: **Yes**
Model Year: **2014**
Gasoline sulfur content of 160 ppm for 2005-2006, 60 ppm for 2007, & 30 ppm for 2008-2050.

MOBILE6.2 CO Emission Factors:

Idle Emission Factor (g/hr): **79.16**

Approach	Speed (mph)	EF (g/mile)
Leg A	30	13.20
Leg B	30	13.20
Leg C	30	13.20
Leg D	30	13.20

***Note: Local roadways should be modeled using an approach speed of 15 mph or less. Highway ramps should be modeled using an approach speed of 5 mph.**

Traffic Signal Timing:

Total Cycle Length (sec): **130**

Red Times:

Type of Movement	Red Times (sec)
Leg A Thru & Rt	90
Leg A Left Turn	111
Leg B Thru & Rt	88
Leg B Left Turn	109
Leg C Thru & Rt	85
Leg C Left Turn	111
Leg D Thru & Rt	84
Leg D Left Turn	110

User Comments:

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Washington State Intersection Screening Tool 1.0

11-01-07

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Bellevue Braided Crossing Project

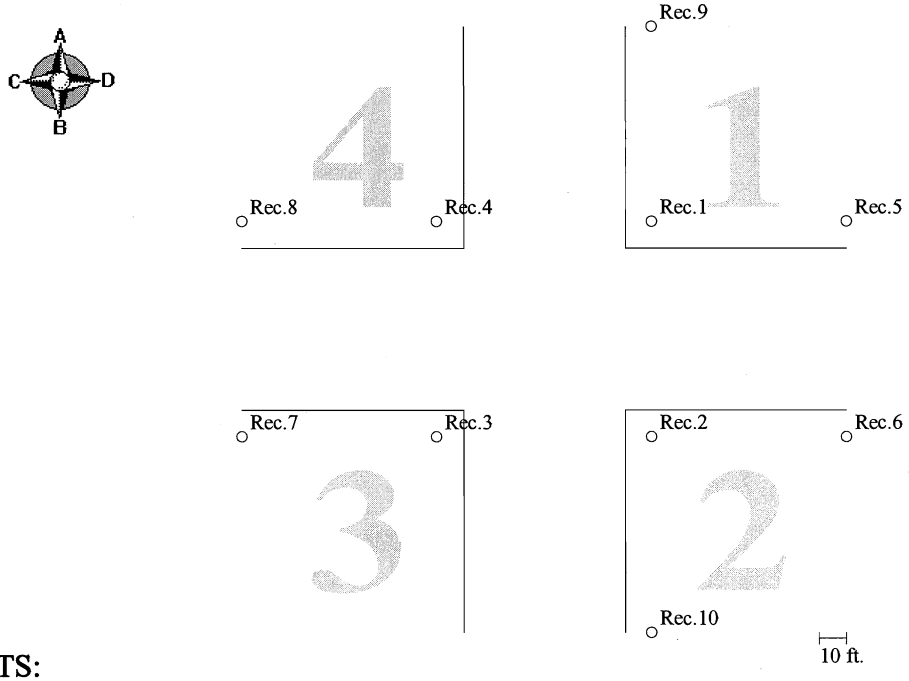
Description: **NE 12th & 112th 2030 NB**

Performed by: **Natalie Liljenwall - CH2M HILL**

-

Intersection Type: **Four-Way Intersection, 4 x 4 w/4 Lt Turns**

Street Names: **A-B: 112th C-D: 12th**



RESULTS:

Receptor#	Quadrant	Distance from A-B roadway (feet)	Distance from C-D roadway (feet)	CO 1-hour avg. Conc. (ppm)	CO 8-hour avg. Conc. (ppm)	Pass/Fail*
1	1	10	10	7.5	6.8	Pass
2	2	10	10	7.7	6.9	Pass
3	3	10	10	7.8	7.0	Pass
4	4	10	10	8.0	7.1	Pass
5	1	82	10	7.3	6.6	Pass
6	2	82	10	7.0	6.4	Pass
7	3	82	10	7.4	6.7	Pass
8	4	82	10	7.2	6.5	Pass
9	1	10	82	6.9	6.3	Pass
10	2	10	82	7.2	6.5	Pass

*Project **PASSES** 1-hr and 8-hr NAAQS of 35 ppm and 9 ppm, respectively.

Largest modeled CO concentrations are at **receptor 4.**

- All CO concentrations include a background concentration of **5.0** ppm.
- 8-hr average CO concentrations are calculated by multiplying the 1-hr average concentrations (without background) by a persistence factor of 0.7 and then adding the background concentration.

Washington State Intersection Screening Tool 1.0

USER INPUTS

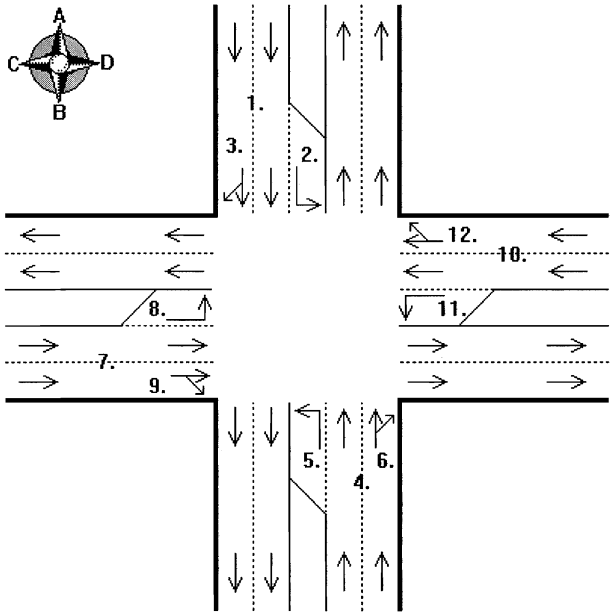
Bellevue Braided Crossing Project

Intersection Data:

Predominant Surroundings: **Offices**

Traffic Volumes:

Vol. Index	Movement	Volume (vph)
1	A-B Thru	730
2	A-D Left Turn	120
3	A-C Right Turn	250
4	B-A Thru	610
5	B-C Left Turn	190
6	B-D Right Turn	240
7	C-D Thru	950
8	C-A Left Turn	310
9	C-B Right Turn	200
10	D-C Thru	1270
11	D-B Left Turn	190
12	D-A Right Turn	210



CO Emission Factors Based On:

Location: **Western Washington - KING County**
CO Maint. Area: **Puget Sound**
I/M Program: **Yes**
Model Year: **2030**
Gasoline sulfur content of 160 ppm for 2005-2006, 60 ppm for 2007, & 30 ppm for 2008-2050.

MOBILE6.2 CO Emission Factors:

Idle Emission Factor (g/hr): **57.24**

Approach	Speed (mph)	EF (g/mile)
Leg A	30	9.55
Leg B	30	9.55
Leg C	30	9.55
Leg D	30	9.55

***Note: Local roadways should be modeled using an approach speed of 15 mph or less. Highway ramps should be modeled using an approach speed of 5 mph.**

Traffic Signal Timing:

Total Cycle Length (sec): **130**

Red Times:

Type of Movement	Red Times (sec)
Leg A Thru & Rt	94
Leg A Left Turn	117
Leg B Thru & Rt	90
Leg B Left Turn	113
Leg C Thru & Rt	74
Leg C Left Turn	107
Leg D Thru & Rt	80
Leg D Left Turn	113

Washington State Intersection Screening Tool 1.0

USER COMMENTS

Bellevue Braided Crossing Project

User Comments:

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